

Serial No. 10/705,753
Response dated May 10, 2005
Reply to final Office Action of March 28, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1-57. (Canceled)

58. (Previously presented) An apparatus for removing a contaminant from an atmosphere in an airplane cabin, the apparatus comprising:

- (a) an adsorptive element comprising a body having a thickness of at least 1 cm and comprising a plurality of passages extending therethrough in a side-by-side array, the passages having a cross-sectional width no greater than about 5 mm, the element comprising a coating less than about 0.5 mm thick substantially covering the passages, the coating comprising a polymeric binder and an adsorptive particulate and having only incidental catalytic activity; and
- (b) a housing having an inlet, an outlet, a receiving volume for the adsorptive element, each of the inlet and outlet in air flow communication with the passages of the adsorptive element.

59. (Currently amended) ~~The apparatus according to claim 58 comprising at least three adsorptive elements further comprising a second adsorptive element and a third adsorptive element both comprising a body having a thickness of at least 1 cm and comprising a plurality of passages extending therethrough in a side-by-side array, the passages having a cross-sectional width no greater than about 5 mm, the second and third elements comprising a coating less than about 0.5 mm thick substantially covering the passages, the coating comprising a polymeric binder and an adsorptive particulate and having only incidental catalytic activity.~~

60. (Previously presented) A system for removing a contaminant from a gas stream for an airplane cabin, the system comprising.

- (a) an adsorptive article comprising:

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- (i) a body having a thickness of at least 1 cm and having a plurality of passages extending along the thickness, the passages having an interior surface and a cross-sectional width of no more than 5 mm; the passages defining an inlet of the article and an outlet; and
 - (ii) a coating present on the interior surface of the passages, the coating comprising a polymeric binder and an adsorbent particulate and having a thickness less than 0.5 mm, the coating being substantially free of catalytic activity; and
- (b) a particulate filter in air flow communication with the inlet of the adsorptive article.

61. (Canceled)

62. (Previously presented) The system according to claim 60, wherein the adsorptive article is configured to remove VOCs from the gas stream.

63. (Previously presented) A method of removing a contaminant from a gas in an airplane cabin, the method comprising:

- (a) installing a contaminant removal article in a pathway of the gas, the article comprising a body having a thickness of at least 1 cm, the body comprising a plurality of passages extending through the body in a side-by-side array, the passages having a cross-sectional width of no more than about 5 mm, the passages having an interior surface and a coating substantially covering the interior surface, the coating comprising a polymeric binder and an adsorptive particulate, the coating having a thickness of no more than 0.5 mm, and the article having only incidental catalytic properties;
- (b) contacting the gas with the article, the gas having contaminant present at a level of 50 ppm-volume to 2 ppb-volume; and
- (c) removing at least 90% of the contaminant from the gas with a pressure drop of no greater than 1 inch water at an airflow filter face velocity of 0.5 m/s.

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64. (Previously presented) The method according to claim 63, wherein the step of removing comprises:

- (a) removing at least 95% of the contaminant from the gas with a pressure drop of no greater than 1 inch water at an airflow filter face velocity of 0.5 m/s.

65. (Previously presented) The method according to claim 63, wherein the step of removing comprises:

- (a) removing at least 98% of the contaminant from the gas with a pressure drop of no greater than 1 inch water at an airflow filter face velocity of 0.5 m/s.

66. (Previously presented) The method according to claim 63, wherein the step of removing comprises:

- (a) removing at least 90% of the contaminant from the gas with a pressure drop of no greater than 0.5 inch water at an airflow filter face velocity of 0.5 m/s.

67. (Previously presented) The method according to claim 63, wherein the step of removing comprises:

- (a) removing at least 90% of the contaminant from the gas with a pressure drop of no greater than 0.1 inch water at an airflow filter face velocity of 0.5 m/s.

68. (Previously presented) The method according to claim 63, wherein the step of contacting a gas with the article comprises:

- (a) contacting the gas with the article, the gas having VOCs present at a level of 50 ppm-volume to 2 ppb-volume.

69. (New) The system according to claim 60, wherein the passages of the body have a cross-sectional area of 1.5 mm² to 30 mm².

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70. (New) The system according to claim 60, wherein the body has a thickness of 2 cm to 10 cm.

71. (New) The system according to claim 60 comprising at least three adsorptive articles as defined by claim 60.

72. (New) The apparatus according to claim 58, wherein the adsorptive element is configured to remove VOCs from the atmosphere.

73. (New) The apparatus according to claim 58, wherein the passages of the adsorptive element have a cross-sectional area of 1.5 mm^2 to 30 mm^2 .

74. (New) The apparatus according to claim 58, wherein the body of the adsorptive element has a thickness of 2 cm to 10 cm.